

2. The larger specimen in the Menagerie has as many as eight scutes in the fifth transverse dorsal row, instead of six, which is the highest number in all other specimens known. Except in trivial points the three specimens otherwise agree with Fauvel's description.

In the following enumeration, I designate by *a* the larger specimen in the Zoological Gardens, by *b* the smaller, by *c* the specimen in the British Museum :—

	<i>a.</i>	<i>b.</i>	<i>c.</i>
Number of teeth.....	$\frac{17}{19}$	$\frac{17}{19}$	$\frac{17}{19}$
Transverse rows of dorsal scutes	17	18	17
Caudal whorls	33	37	37

Specimen *b* is blackish above, speckled or vermiculated with yellowish on the head and nape, and on the cross bands on the body, limbs, and base of tail. Iris dark, bronzy, vermiculated with black. Specimen *a* is nearly uniform black, with mere traces, here and there, of light vermiculations.

EXPLANATION OF THE PLATES.

PLATE LI.

The smaller specimen (*b*) of *Alligator sinensis* in the Society's Gardens, from life, reduced about $\frac{1}{4}$.

PLATE LII.

Head and nape of the specimen (*c*) in the British Museum, about $\frac{2}{3}$ of nat. size.

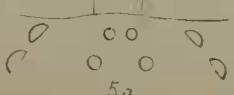
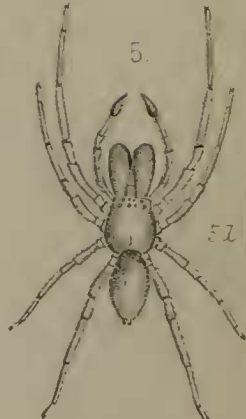
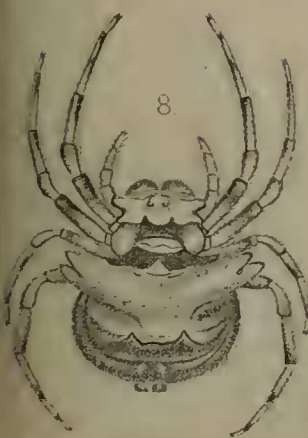
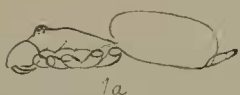
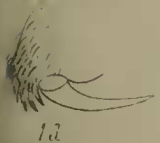
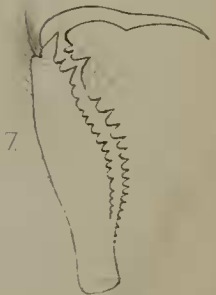
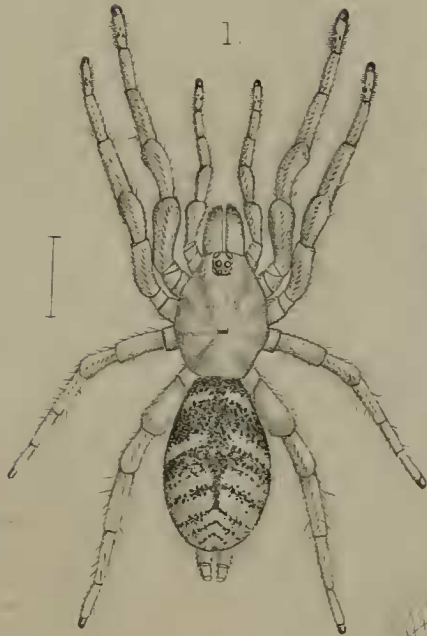
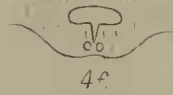
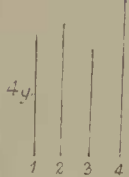
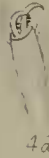
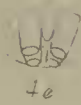
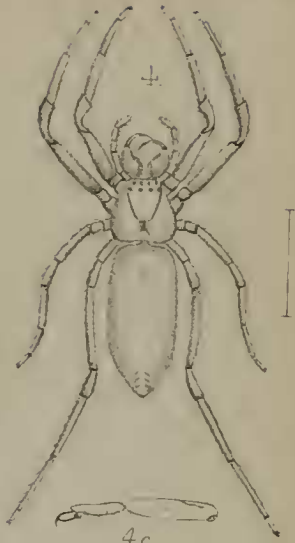
2. On some new Species and two new Genera of *Araneidea*.

By the Rev. O. P. CAMBRIDGE, M.A., F.R.S., C.M.Z.S., &c.

[Received October 23, 1890.]

(Plate LIII.)

A small collection of Spiders placed in my hands by Mr. Frederick Taylor, of Rainhill, Lancashire, most of them collected in South Africa by the Rev. Nendick Abraham, contains examples of several species of much interest. Four of them appear to me to be undescribed, and on one I have ventured to found a new genus (*Platyoides*) in the family Drassidæ. Together with the above, Mr. Taylor sent me a Spider from New Zealand, which is, I think, without much doubt, *Migas paradoxus*, L. Koch. A trapdoor nest of this Spider accompanied the specimen; it was found attached to the roots of fern, *i. e.*, I conclude, to the base of the stem, among the loose soil around it. Spiders of the Trapdoor group, as a rule, have the extremities of the falces on the upper side armed with a group of strong spines or teeth; these are used in the excavation of the cylindrical holes in which the nests are formed, and are well adapted, and probably necessary, for this work. In the genus *Migas*, however, the falces are not so armed, and hence the type, *M. paradoxus*, received its specific name from Dr. L. Koch. The nest now figured is new to science, and its being formed in a situation where excavation in the solid earth is not required somewhat



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NEW ARANEIDA

Mantion Bros imp

confirms the interpretation above implied from the absence of the spines on the falces. This, however, cannot be taken as conclusive, inasmuch as in the genus *Moggridgea*, Cambr., there is a similar absence of spines on the falces, while in an allied genus (*Dendricon*, Cambr.) they are present; but the known Spiders of each of these two genera form their trapdoor nests in similar situations, *i. e.* in the interstices of the rough bark of trees. I am also glad to be able to give a figure and description, in the present paper, of *Dendricon rastratum*, Cambr., a genus and species characterized and described some time since (P. Z. S. 1889, p. 250) from a few dried fragments of the Spider, which had been crushed to pieces in transit. The perfect specimen, now in the British Museum, bears out the generic distinction accorded to the fragments mentioned. Another very remarkable Theraphosid described below was received from India, from Dr. Walsh (of the General Hospital, Calcutta). It possesses only two spinners, and consequently needs not only a new genus, but a new subfamily for its reception.

Along with the above-mentioned species is also described a fine Spider, nearly allied to the very remarkable *Robsonia marina*, Hector, which last lives in holes of the rocks in the sea below high-water mark, in New Zealand. I received no information as to the habits of the present Spider, but should imagine them to be like those of Dr. Hector's species. Among Mr. Abraham's S.-African Spiders were several adult specimens of *Stegodyphus gregarius*, Cambr., of which the large nest, numerously inhabited by Spiders of all ages, some time ago in the Society's Gardens¹, came from the same quarter of the globe. Mr. Abraham, however, says that the nest of this Spider sometimes attains the enormous dimensions of twelve feet.

Fam. THERAPHOSIDÆ.

Subfam. DIPLOTHELIDÆ. (Spinners 2.)

DIPLOTHELE, gen. nov.

Characters of the Genus.

Cephalothorax oval, rather truncated in front.

Eyes very unequal in size, placed on a distinct protuberance, forming a square; the fore laterals and hind laterals occupy the four corners of the square, and are placed obliquely, cutting off the angles; the fore and hind centrals form a transverse quadrangle within the square, nearest the hinder part.

Legs rather strong, moderately long, 4, 1, 2, 3, but not differing greatly in length; furnished with hairs and bristles only, a few of the latter beneath the tibiæ and metatarsi of the third and fourth pairs being of a spinous character; the tarsi of the first two pairs terminate with a strong compact claw-tuft, pointed in front; the terminal claws appeared to be two, curved, but not strong, and without, so far as could be seen, any denticulation. The claw-tuft on the two hinder pairs is less compact, not pointed, and more

¹ Presented by Lord Walsingham.

divided. Each tarsus has a not very dense scopula beneath it, least dense on those of the third and fourth pairs.

Falces strong, projecting, and armed with some strong, curved claws at the fore extremity, just in front of the base of the fang.

Maxillæ cylindrical, divergent; the inner corner of the anterior extremity very slightly prominent.

Labium short, slightly hollow-truncate at the apex, which is but little less wide than the base.

Sternum oval, rather broadest behind.

Spinners two only; moderate in length and strength, two-jointed, and upturned.

DIPLOTHELE WALSHI, sp. n. (Plate XLIII. fig. 1.)

Length of an immature female, rather over 4 lines.

The colour of the *cephalothorax* and *falces* is pale yellow-brown, the normal converging indentations marked by darker lines; the thoracic indentation is moderate in depth, curved, the convexity of the curve directed backwards; the surface is furnished with hairs and slender bristles. The profile line of the caput is slightly curved behind the ocular protuberance, but runs off pretty evenly and gradually to the hinder margin. The posterior side of the ocular protuberance is abrupt, the anterior rather less so.

The fore lateral *eyes* are largest of the eight, next are the fore centrals, and the hind centrals are the smallest; these last are contiguous to the hind laterals, and with them are of a shining white colour; the fore laterals are pearly, the fore centrals dark grey. The latter are placed on a largish black patch, the rest are more or less widely edged with a similar colour. The fore laterals are seated on the anterior slope of the protuberance and look straight forward; between them are a few strong black recurved bristles.

The *legs* (together with the *palpi*, which are leg-like and similarly furnished) are of a yellow hue, as also are the maxillæ, labium, and sternum; towards the hinder extremity of the upperside of the tarsus of each of the first two pairs of legs and of the palpi is a group of three or four black, clavate, or racquet-shaped hairs.

The *falces* are furnished with numerous hairs and strong bristles, besides the *râteau* of curved spines at their fore extremity on the upperside. The fang is strong, curved, and of moderate length.

The *abdomen* is oval, of a dull clay-yellow colour, marked on the upper part and sides with broken transverse black fasciæ of varied width and clearness of definition, those on the anterior half being the strongest and best defined; it is clothed above with hairs and a few slender bristles, underneath with hairs only.

The *spinners* are two only in number and two-jointed, unless the small but distinct portion at the extremity, on which the spinnerets (or spinning-tubes) are placed, be taken to form a *third* joint.

An immature female of this very interesting and remarkable Spider was sent to me from Orissa, Calcutta, by Dr. Walsh (of the Calcutta General Hospital). The possession of only two spinners differentiates it from all others of the *Theraphosidæ* known to me, and by this, as well as by other important characters, such as the possession of spines

at the extremities of the falces, but no spiny armature on the legs, the position of the eyes, and the form of the claw-tufts, it may be readily distinguished. A nest accompanied the Spider, but was unfortunately too much damaged to enable me to do more than to note that it was a round cylindrical hole, lined with white silk and covered with a hinged lid or door somewhat between the cork and wafer types in character.

Genus DENDRICON, Cambr. P. Z. S. 1889, p. 250.

Pseudidiops, Simon, Ann. Soc. Ent. Fr. 1889, sér. 6, tom. ix. pp. 182, 215, pl. i. fig. 3.

In characterizing this genus (*l. c. suprâ*) the only materials available were a few fragments of the Spider, but as these comprised a fore leg, a falx, the labium, and one of the maxillæ, it appeared to me sufficient to establish the genus upon. Subsequent examination of a perfect specimen, as well as the characters given by M. Simon (*l. c. suprâ*), have justified this opinion. A conjecture, however, hazarded as to the affinity of this genus to *Moggridgea*, Cambr. (based on the character and position of its trapdoor nest and some points of structures), is not borne out. The position of the eyes, in the perfect specimen which has since come under my notice, shows that it is more nearly allied to *Idiops*, Perty. There seems little doubt but that it is identical with the Spider described by M. Simon from Cayenne.

DENDRICON RASTRATUM, Cambr. (Plate LIII. fig. 2.)

An adult female.

The *cephalothorax* and *falces* are of a pitchy black colour. The *legs* rather paler, with an olive tinge. The *abdomen* is of a deep purplish brown. Spinners four; those of the inferior pair are small and cylindrical, the superior ones short, two-jointed, upturned, not visible when looked down at from above. The relative length of the legs is 4, 1, 3, 2, or 4, 1, 2, 3. The caput just at the occipital junction is strongly prominent.

The *eyes* are in two widely separated groups, two very near together occupying a small prominence at the middle of the fore extremity of the caput, the remaining six in a transverse oval figure at some distance behind; four of these six form a curved transverse line, the convexity of the curve directed backwards, and a little way in front are the other two, being the largest of the eight, and separated (apparently) by rather less than a diameter's interval. The two central eyes of the curved row are widely separated, and each is about (or perhaps less than) a diameter's distance from the end eye on its side.

Another example, examined at the same time as the one above described, may possibly turn out to be of a different species, though without further examination (which I am at present unable to make) I hesitate to describe it as distinct. In this specimen the general hue was yellow-brown, the proportionate length and breadth of the cephalothorax seemed slightly different, the eyes were more

closely grouped together and varied a little in their relative position, and the Spider itself was smaller. The above examples are in the British Museum, and were kindly submitted to me by Mr. Pocock. Two nests accompanied them, one of which was exactly like the one described (P. Z. S. 1889, p. 250); the other was a little different, though not more so than might be quite consistent with the identity of their species.

Hab. Bahia.

Genus MIGAS, L. Koch.

MIGAS PARADOXUS, L. Koch, *Arachn. Anstr.* i. p. 467, t. xxxvi. f. 1.

An adult female of this Spider from New Zealand was contained in the collection submitted to me by Mr. F. Taylor, as well as one of its trapdoor nests (Plate LIII. fig. 3) found at the roots of fern. It was about an inch and a half in length, covered with particles of soil and decayed vegetable matter, and protected by a thin wafer-lid attached by a weak silken hinge. I do not believe that the nest of this Spider has been described before, and its being found attached to the roots of fern, where the Spider could obtain a suitable position without itself excavating an independent hole in the soil, is quite in accordance with the absence of those strong spines at the extremity of the *falces* with which Spiders whose known habits are to excavate their dwellings in the hard soil are invariably furnished.

Family DRASSIDÆ.

PLATYOIDES, gen. nov.

Cephalothorax a little longer than broad, broadest behind, flattened above, the *caput* and *thorax* being on the same level; normal indentations distinct but not strong, except the thoracic indentation, which is rather long and deep.

Eyes in two transverse, slightly curved rows, the convexity of which is directed forwards, the anterior row shortest and close to the lower margin of the *clypeus*; small and not greatly differing in size; the hind centrals slightly smallest and wider apart, as well as forming a longer line than those of the fore central pair. Those of the lateral pairs seated on slight tubercles. The four centrals form a square whose posterior side is longer than the rest. The hind centrals are much nearer to each other than each is to the hind lateral on its side, and the same holds good, though in a less degree, in respect to the fore central eyes.

Falces long, projecting, abruptly prominent above towards the base, divergent, and thickly furnished with hairs on their inner sides. The fang is long, sharp-pointed, and much curved.

Legs moderately long, and not differing very greatly in length, 4, 2, 1, 3. The *coxæ* and *genuæ* are of rather unusual comparative length, especially the *coxæ* of the fourth pair, which are double the length of those of the first pair, while the *genua* of the second pair is the longest and that of the third pair the shortest. The *tarsi* are all very short, and terminate with two curved claws, each furnished

with two small teeth near the middle on its inner side. The legs are furnished with slender bristles and hairs only, many of which had probably been rubbed off, no spines being visible.

Palpi slender, and similar to the legs in armature.

Maxillæ long, moderately strong, and of very characteristic form, rather inclined towards the labium, enlarged near the extremities, where they are obliquely truncated from the outer side inwards, the truncation thickly clothed with hairs; the palpi arising from about halfway towards the extremity.

Labium slightly more than half the length of the maxillæ, sides parallel, rounded at the apex.

Sternum oval, rather broadest behind.

Abdomen oblong, rather flattened above, somewhat truncated before, and obtusely pointed behind. Spinners short, compact, inferior pair rather longest and strongest, and placed immediately beneath the hinder extremity of the abdomen.

PLATYOIDES ABRAHAMI, sp. n. (Plate LIII. fig. 4.)

Adult female, length (not including the falces) very nearly 6 lines. The colour of the cephalothorax and falces is a liver-coloured brown, the normal grooves and indentations blackish.

The *legs* have the tarsi, metatarsi, tibiæ, and genuæ of a rather olive-brown, the remainder dull orange-yellow.

The *palpi* are olive-brown, as also are the *maxillæ* and *labium*, the last being darkest.

The *sternum* is dull orange, with a narrow reddish-brown margin.

The *abdomen* is thinly clothed with short hairs, and of an almost uniform dull black above, paler along the middle of the upperside, and with traces of transverse pale oblique lines just above the spinners, but no distinct pattern visible, though this may have been owing to the rather damaged condition of the type specimen; the underside is of a uniform pale dull yellow-brown.

Hab. S. Africa.

GENUS ROBSONIA, Cambr.

ROBSONIA FORMIDABILIS, sp. n. (Plate LIII. fig. 5.)

Adult male, length $4\frac{1}{2}$ to nearly 7 lines, to end of falces 7 to $9\frac{1}{2}$ lines; length of female, including the falces, $9\frac{1}{2}$ lines.

Cephalothorax, *falces*, *labium*, *maxillæ*, and *sternum* rich liver-colour. *Legs* and *palpi* yellow-brown, tinged with reddish. *Abdomen* dull brown.

The *cephalothorax* is slightly longer than the falces, of a broad-oval form, truncated in front; the lateral marginal constriction at the caput is slight; the caput and thorax are uniformly convex, with very slightly marked normal indentations, and the surface is clothed, but not densely, with rather short, light brownish fine hairs.

The *falces* are long, slightly shorter than the cephalothorax, powerful, projecting, and curved, with strong teeth on their inner sides, where they are also furnished with numerous hairs. The fang lies a little obliquely; it is long and strong, and slightly curved.

The *eyes* are in the normal position, but those of the hind central pair are much nearer together than each is to the lateral eye on its side in the same row, the interval being nearly double the extent of that between the centrals.

The *legs* are moderate in length and strength, 1, 4, 2, 3, destitute of spines, but pretty densely clothed with hairs, those beneath the metatarsi and tarsi almost amounting to a scopula; terminal claws strong, those of the superior pair furnished with 6-7 small close-set teeth towards their base.

The *palpi* are rather long, slender. The radial joint is double the length of the cubital, and has a bifid projection at its outer extremity, the lower limb being longest and strongest. The digital joint is long narrow-oval. The palpal organs are simple, not very prominent, with a slender reddish filiform spine round their margins on the outer side.

The *abdomen* is densely clothed with short pale brownish hairs. Spinners normal.

The sexes resemble each other.

This fine Spider is nearly allied to *Robsonia marina*, Hector, a New-Zealand species (P. Z. S. 1879, p. 687, pl. lii. fig. 4), resembling it closely in general form and structure; but it may easily be distinguished by its larger size, stouter form, much denser hairy clothing, and (notably) by the total absence of spines on the legs, and the relative position of the eyes, those of the posterior row in *R. marina* being separated from each other by equal intervals, while in the present species the interval between the central pair is nearly, if not quite, double that between each and the lateral eye next to it.

I have no information respecting the habits of this Spider, but from its near alliance to the New-Zealand species I should imagine it to be semi-aquatic like that one.

Hab. Cape of Good Hope.

Fam. ERESIDÆ.

Genus STEGODYPHUS, Sim.

STEGODYPHUS GREGARIUS, Cambr. P. Z. S. 1889, p. 42, pl. ii. figs. 4, 5.

Several adult females of this Spider were among those submitted to me by Mr. F. Taylor from S. Africa, and forwarded to him by the Rev. Nendick Abraham. Nests of this species appear, from Mr. Abraham's account, to attain a great size, sometimes as much as 12 feet in extent. Their habits in nature, from Mr. Abraham's account, seem to correspond very closely with those evidenced by them in captivity in the Society's Gardens (see *l. c. supra*).

Fam. EPEIRIDÆ.

Genus ARGYROEPEIRA.

ARGYROEPEIRA BLANDA, sp. n. (Plate LIII. fig. 6.)

Length of an immature female, 4 lines.

This species is of the ordinary form. The whole of the fore part (including the *cephalothorax*, legs, and falces) yellow. *Legs* rather

short, 1, 2, 4, 3, the spines few and slender. The *falces* strong, vertical, and prominent at their base in front. The *eyes* are small, seated on black spots; the four centrals form a small trapezoid a little longer than broad; the laterals not being greatly removed from the centrals, seated on a small tubercle, and contiguous to each other. The curve of the anterior row of eyes is the strongest, the curves, as usual, opposed—*i. e.* that of the anterior row directed forwards, and of the posterior backwards.

The *sternum* is black-brown, furnished at its fore part with long hairs.

The *abdomen* is large, oblong, slightly tapering to the spinners, and projects over the thorax; it is of a uniform closely reticulated silvery hue above, excepting an irregular blackish patch close to a low prominence on each side near the fore extremity; there is also a slender blackish longitudinal central line, emitting a fine black cross-line in front, still finer oblique lines on each side of the hinder half, and two black elongate patches at the posterior extremity, near together and converging to the spinners. The sides of the abdomen, the hinder part of which projects well over the spinners, are blackish, obliquely streaked with silver; the underside has a large central, uniform, silver area, parallel on the sides, square before, and rounded behind. The spinners are encircled with four round silvery spots, the anterior pair being the largest and widest apart.

This Spider, though much resembling some species from Ceylon and South America, is, I think, new to science.

Hab. S. Africa.

GENUS TETRAGNATHA.

TETRAGNATHA TAYLORI, sp. n. (Plate LIII. fig. 7.)

Adult female, length 5 lines. Length of the *falces* over 2 lines, and exceeding in length that of the cephalothorax.

This Spider is of the ordinary *T. extensa* form, but the *falces* are very divergent, and project more in the same plane with the cephalothorax than in that species. The fang is very long and strong, bicurvate, with a slight projecting point in the middle on the inner side, and abruptly bent at the base close to its articulation with the falx, and has a small tooth there on the outer side. On each side of this articulation the falx has a strong sharp tooth; that on the under (and outer) side is much the strongest and close to the articulation. The inner side of the falx is armed (next to the fang) with two strong teeth placed transversely; these are followed by two converging longitudinal closely-set rows of other teeth, which decrease in size towards the base of the falx; the inner row being the shortest, but its teeth the strongest.

The *legs* are long—1, 4, 2, 3; the spines few and slender.

The *eyes* are placed in two transverse, almost concentric, curved rows; the interval between the laterals being nearly equal to that which separates the central pairs. The four central eyes form a square whose anterior side is rather the shortest; and those of the hind central pair are slightly nearer together than each is to the hind lateral eye on its side. The clypeus is vertical, and its height